

IN THE CLAIMS:

Claim 1 (currently amended) A telephone switching system for facilitating and controlling voice and data communication among and between telephone sets, both internal to said system and external to said system, said system comprising:

a telephone exchange switch controllable by a central processing unit (CPU) contained within said telephone exchange switch, said CPU also being used for forming predetermined messages;

b1 a voice mail system in electronic communication with said telephone exchange switch using a data communications link for message exchange between said telephone exchange switch and said voice mail system, said data link being in addition to a voice link between said telephone exchange switch and said voice mail system, said voice mail system including means for forming predetermined messages for said message exchange, said message exchange also serving to control said telephone exchange switch; and

at least one telephone set in electronic communication with said telephone exchange switch, said telephone set including means for displaying alphanumeric characters in a human readable form, said means for displaying being operable responsive to at least one message received from said telephone exchange switch resulting from said message exchange between said telephone exchange switch and said voice mail system, said telephone set further including at least one manual switch for sending a signal to said telephone exchange switch

responsive to said message received from said telephone exchange switch resulting from said message exchange between said telephone exchange switch and said voice mail system, said signal being indicative of a predetermined response to said message from said voice mail system[.]

B1 an automated call distribution system associated with said voice mail system and a plurality of telephone sets connected to said telephone exchange switch, each of said telephone sets having a designated message location associated with said voice mail system, each said message location being accessible by a respective telephone set for communication therebetween, said system further comprising means for determining a state associated with each said telephone set being controlled by said automated call distribution system, said state defining whether each said telephone being controlled by said automated call distribution system is in a busy condition and means for communicating said state for each telephone set being controlled by said automated call distribution system to said voice mail system as a state message using said data link , said voice mail system further including means for monitoring each said state message and transferring incoming telephone calls to telephone sets for which said respective state message indicates as being idle;

said voice mail system including means for selectively initiating and stopping said generation of each said state message for any specific extension and wherein said switch includes means for determining whether each said telephone set being controlled by said automated call distribution system changes from an idle

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condition to a busy condition and, upon detection of said change, transmitting said state message to said voice mail system.

[Claims 2-12 (canceled)

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Claim ~~13~~² (currently amended) A telephone switching system according to claim ~~12~~ 1 wherein ~~said~~ further including a means for controlling information displayed on said display device, said means for controlling including ~~includes~~ means for sending an initial message to open said display device, at least one message to provide information regarding said automated call distribution system, and a message to close said display device.

[Claim 14 (canceled)

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Claim ~~15~~³ (currently amended) A telephone switching system according to claim ~~14~~ 1 wherein said voice mail system maintains a database of information relating to each said telephone set and a respective designated message location thereof, ~~and said~~ means for supplying information regarding each respective telephone set includes ~~means for supplying information to update said database ;~~ the system further including a means for supplying information regarding each respective telephone set from said switch to said voice mail system for updating information used by said voice mail system with respect to each said telephone set.

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Claim 16 (original) A telephone switching system according to claim 1 wherein said telephone exchange switch is a first telephone exchange switch, said system further comprising:

a second telephone exchange switch remotely disposed from said first telephone exchange switch;

means for electronically connecting said second telephone exchange switch to said first telephone exchange switch through the internet;

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at least one second telephone set in electronic communication with said second telephone exchange switch, said second telephone set including means for displaying alphanumeric characters in a human readable form, said means for displaying being operable responsive to at least one message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system, through the internet and said first telephone exchange switch, said second telephone set further including at least one manual switch for sending a signal to said second telephone exchange switch responsive to said message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system through the internet and said first telephone exchange switch, said signal being indicative of a predetermined response to said message from said voice mail system.

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Claim 17 (currently amended) A computer implemented method for operating a telephone switching system for facilitating and controlling voice and data communication among and between telephone sets, both internal to said system and external to said system, said method comprising the steps of:

providing a telephone exchange switch controllable by a central processing unit (CPU) contained within said telephone exchange switch, said CPU also being used for forming predetermined messages;

providing a voice mail system in electronic communication with said telephone exchange switch using a data communications link for message exchange between said telephone exchange switch and said voice mail system said voice mail system including means for forming predetermined messages said data communications link being in addition to a voice link between said telephone exchange switch and said voice mail system, said message exchange serving to control the telephone exchange switch;

providing at least one telephone set in electronic communication with said telephone exchange switch, said telephone set including means for displaying alphanumeric characters in a human readable form, said means for displaying being operable in response to at least one message received from said telephone exchange switch resulting from said message exchange between said telephone exchange switch and said voice mail system, said telephone set including at least one manual switch operatively associated with said means for displaying;

forming predetermined messages for said message exchange using said voice mail system and said telephone exchange switch;

exchanging said predetermined messages between said voice mail system and said telephone exchange switch; and

operating said means for displaying responsive to at least one message received from said telephone exchange switch resulting from said message exchange between said telephone exchange switch and said voice mail system[.]

B1 providing an automated call distribution system associated with said voice mail system and a plurality of telephone sets connected to said telephone exchange switch, each of said telephone sets having a designated message location associated with said voice mail system, each said message location being accessible by a respective telephone set for communication therebetween;

determining a state associated with each said telephone set being controlled by said automated call distribution system using said telephone exchange switch, said state defining whether each said telephone being controlled by said automated call distribution system is in a busy condition;

communicating said state for each telephone set being controlled by said automated call distribution system to said voice mail system as a state message using said data link ;

monitoring each said state message and transferring incoming telephone calls to telephone sets for which said respective state message indicates

as being idle, said monitoring and transferring being performed by said voice mail system;

selectively initiating and stopping said generation of each said state message for any specific station using said voice mail system;

determining whether each said telephone set being controlled by said automated call distribution system changes from an idle condition to a busy condition using said telephone exchange switch; and

transmitting, upon detection of said change, said state message to said voice mail system.

[Claims 18-27 (canceled)

B1 ⁶ Claim 28 (currently amended) A computer implemented method for operating a telephone switching system according to claim 27 17 ~~wherein said step of controlling information displayed on said display device includes~~ including the further step of controlling information displayed on said display device by :

sending an initial message to open said display device;

sending at least one message to provide information regarding said automated call distribution system; and

sending a message to close said display device.

[Claim 29 (canceled)

Claim ¹~~30~~ (original) A computer implemented method for operating a telephone switching system according to claim ⁵~~17~~ wherein step of providing a telephone exchange switch includes providing a first telephone exchange switch and said method further includes the steps of:

providing a second telephone exchange switch remotely disposed from said first telephone exchange switch;

providing means for electronically connecting said second telephone exchange switch to said first telephone exchange switch through the internet;

^{B1} providing at least one second telephone set in electronic communication with said second telephone exchange switch, said second telephone set including means for displaying alphanumeric characters in a human readable form, said means for displaying being operable responsive to at least one message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system, through the internet and said first telephone exchange switch, said second telephone set further including at least one manual switch for sending a signal to said second telephone exchange switch responsive to said message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system through the internet and said first telephone exchange switch, said signal being indicative of a predetermined response to said message;

connecting said second telephone exchange switch with said first telephone exchange switch using said internet connection;

forming predetermined messages for said message exchange using said voice mail system and said second telephone exchange switch;

exchanging said predetermined messages between said voice mail system and said second telephone exchange switch through said first telephone exchange switch and said internet connection; and

operating said means for displaying responsive to at least one message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system.

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Claim ~~31~~ (previously amended) A computer implemented method for operating a telephone switching system according to claim ~~30~~ wherein said method further includes the step of:

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sending a signal using said at least one manual switch, said signal being sent to said second telephone exchange switch in response to said message received from said second telephone exchange switch resulting from said message exchange between said second telephone exchange switch and said voice mail system through said first telephone exchange switch and said internet connection, said signal being indicative of a predetermined response to said message received from said second telephone exchange switch.